

(Preliminary)

RESEARCH PROPOSAL

Title: A Comparative Study of Bird Populations in Illinois, 1906-1909, 1956-1958, and 1984-1987.

Background:

In 1906 a series of cross-country censuses of the birds of Illinois were initiated by Dr. Alfred O. Gross under the supervision of Dr. Stephen A. Forbes of the Illinois Natural History Survey. These surveys provided a quantitative record of the bird populations of that time and subsequently provided a basis for evaluating the extensive adjustments of bird populations in Illinois over the 50 years between 1906 and 1956 when the censuses were repeated by Drs. Richard and Jean Graber. It is now more than 27 years since the last statewide non-gamebird censuses. Agricultural statistics demonstrate continued changes in land use and avian habitat since 1956. Limited data are available on statewide populations of game birds, but little or nothing comparable is available on the current status and adjustments of avians to environmental change since 1956. Pheasants, for example, are known to have declined about 95% since 1962.

Proposed:

It is proposed that funding be provided from resources accruing to the Department of Conservation from the non-game wildlife check-off provision of the Illinois State Income Tax to support a comparative study of bird populations in Illinois 1984-1987. This study would, in effect, repeat the work of Gross and Forbes, 1906-1908, and the Grabers, 1956-1958.

Objectives:

- a) To obtain estimates of the current abundance and density of breeding and wintering birds in Illinois.
- b) To quantify the current quality, availability and distribution of the principle habitats of Illinois birds.
- c) To determine the extent of change in avian populations and habitat since 1956-1958 and in so far as possible identify factors responsible for those changes.
- d) To predict probable future trends in avian abundance and habitat.
- e) To suggest possible techniques and programs of management to help conserve and preserve Illinois birds and their habitats.

Methods:

Fieldwork will be based primarily on strip census as described by Forbes (1907:307), Forbes and Gross (1921:1-2), and Graber and Graber (1963: 383-389); appropriate sampling and statistical methods will be employed. Predictions will be based in so far as possible from emperical data.

Project Organizations:

The study will be a cooperative endeavor of the Illinois Natural History Survey (Survey) and the Department of Conservation (DOC). Fieldwork, analysis and reporting will be by and under supervision of the Survey with funding by grant from non-game revenues provided by the DOC. The supporting grant would be administered through the University of Illinois at Champaign-Urbana.

Staff Organization:

Principle Investigator	Ornithologist, Survey
Co-principle Investigator	G.C. Sanderson, Survey
Field Assistants (2)	To be Selected, Survey
Hourly Help	To be Selected, Survey
Advisor/Coordinator	Carl Becker, DOC

Period:

July 1, 1984 - June 30, 1987 (3 years)

Schedule:

July - October, 1984--organization, planning, training of field assistants, trial surveys.

November, 1984 - October, 1986--collection of field data, data processing, analysis, preliminary report preparations

November, 1986 - June 30, 1987--preparation of final report.

Reporting:

Annual reports due July 1, 1985 and 1986.

Final report due July 1, 1987.

Prepared by: William R. Edwards
28 November 1983

Budget (Annual, FY 1985)

Personnel

Principal Investigator

Co-principal Investigator

Project Assistant (2)

24 mo

\$1,333/mo

\$ 32,000

Hourly

2,000 hrs.

\$3/hr

6,000

Subtotal

\$ 38,000

Travel

300 days

\$25/day

\$ 7,500

Rentals (Vehicle)

6,000 mi

25¢/mi

\$ 15,000

Other Expenses

Telephone

12 mo

\$100/mo

\$ 1,200

M.F. Computer & Data Proc.

\$100/mo

1,200

Paper, etc.

\$25/mo

300

Msc. Expenses

2,000

Subtotal

\$ 4,700

Equipment

Binoculars & Spotting Scopes

\$ 400

Mini-computer & Accessory Equip.

5,500

Msc. Equipment

1,600

Subtotal

\$ 7,500

Total

\$ 72,200

U of I Overhead

7,270

Project Total

\$ 79,470